

Growth, Welfare, and the Commons

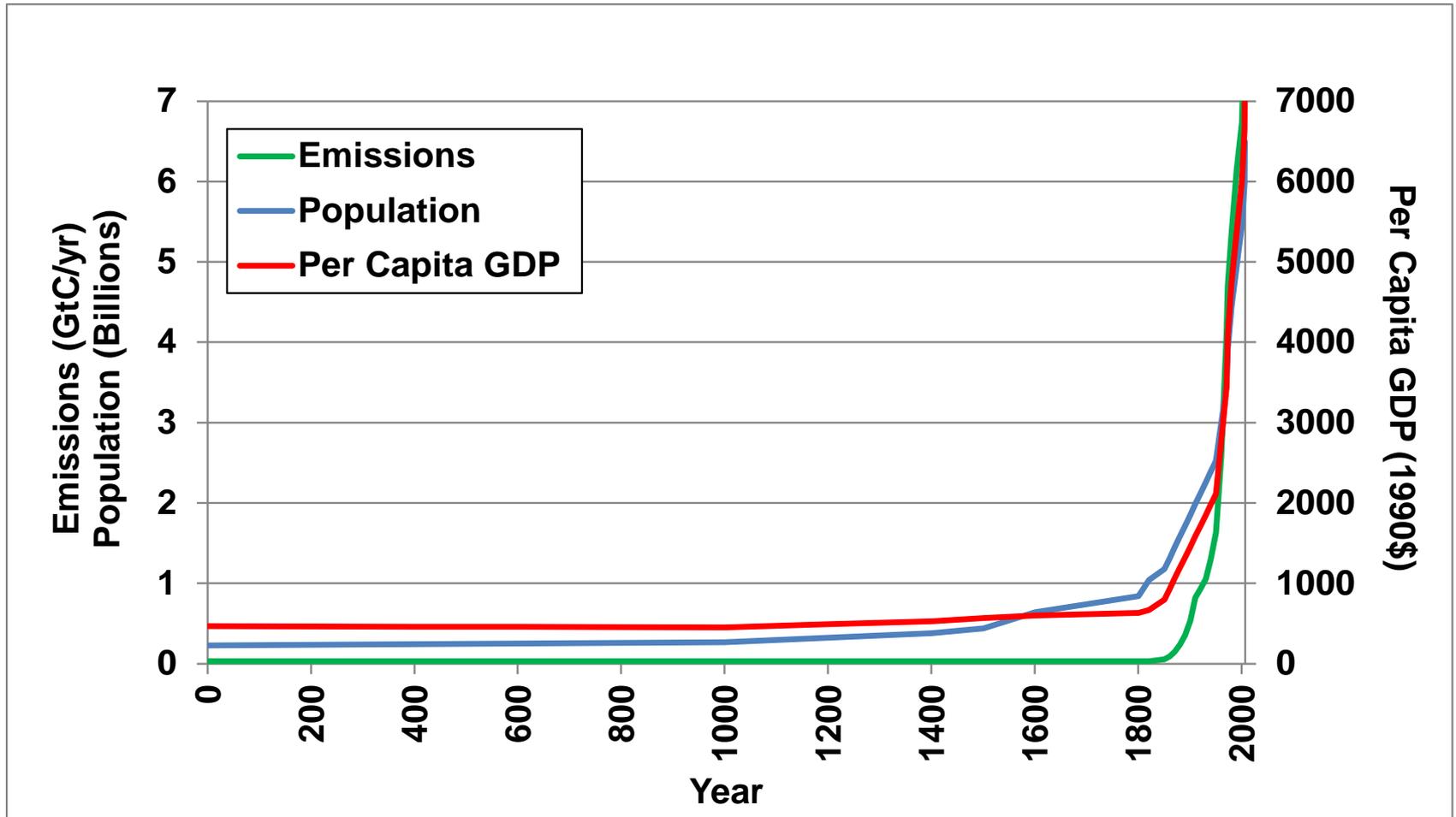
Global Economic Forum
Kiel, 14 October 2015

Prof. Dr. Ottmar Edenhofer

Outline

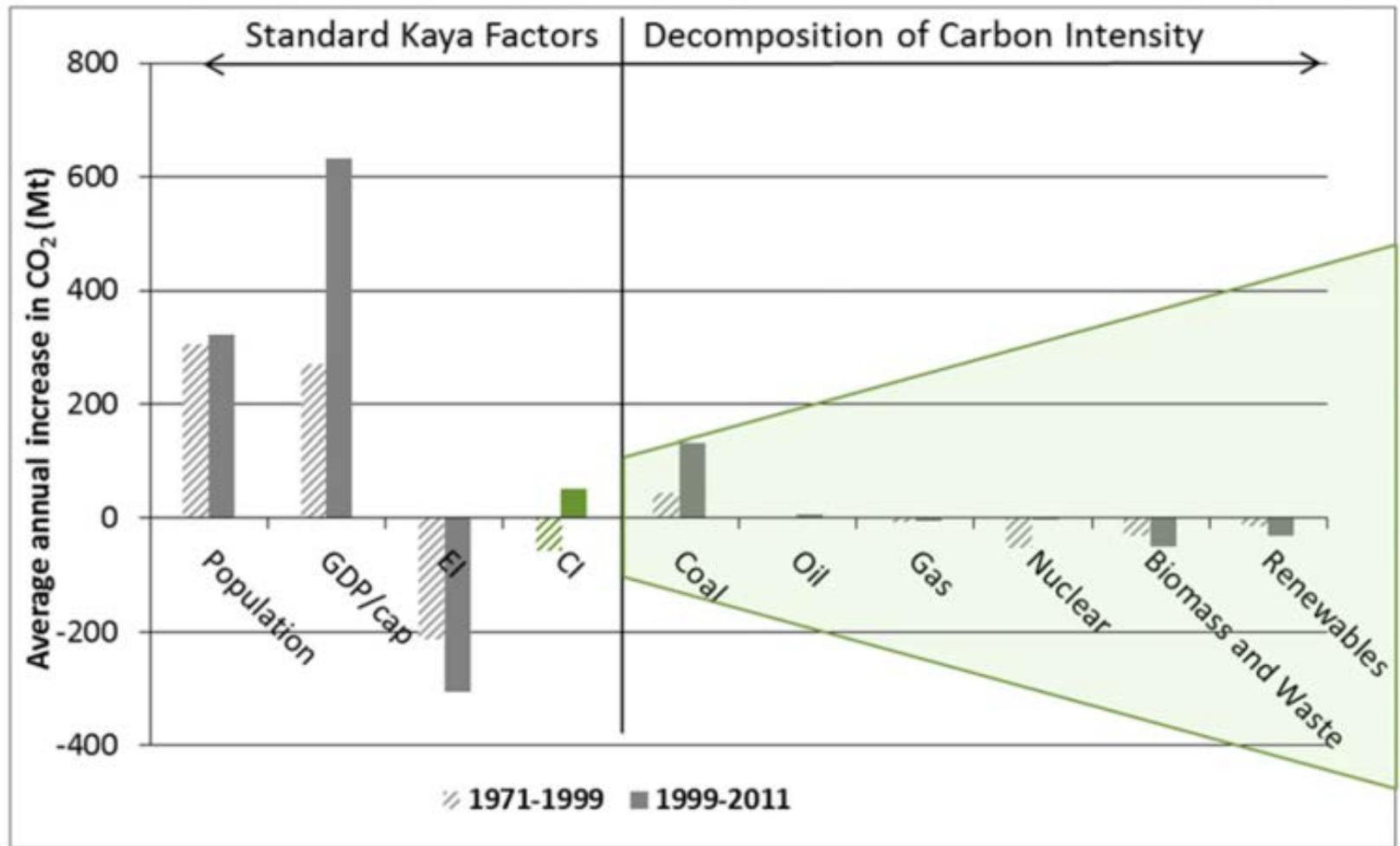
1. Growth and the natural environment
2. From growth to welfare
3. Commons as a new paradigm
4. Conclusion

Economic Growth in Perspective



Edenhofer et al. (2012)

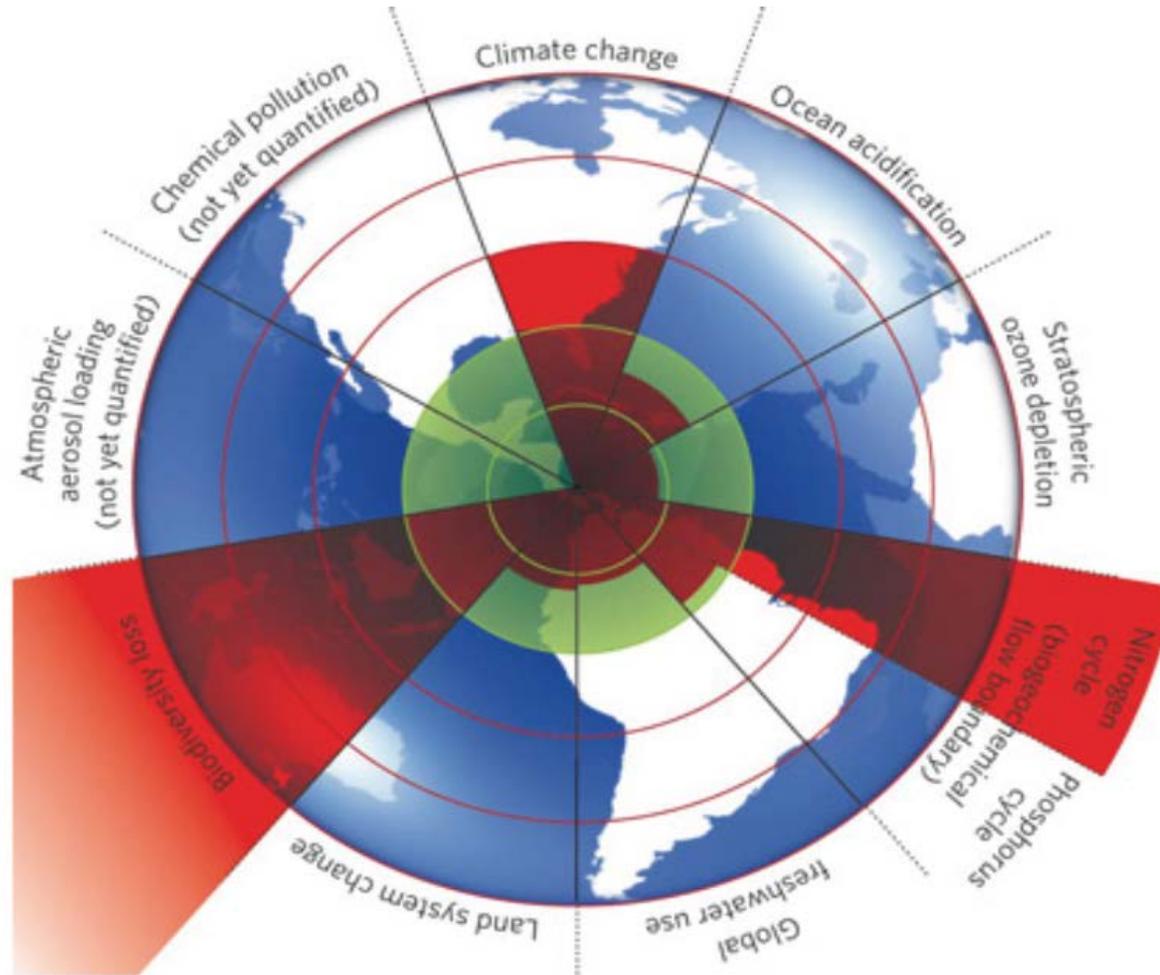
The Coal Renaissance



Steckel, Edenhofer and Jakob (2015)

Coal Renaissance mostly driven by poor, fast growing countries

No Limits to Economic Growth?



Rockström et al. (2009)

Danger of overstepping “planetary boundaries”?

Green Growth to the rescue?

Can we keep up economic growth
and still protect the environment?

What is Green Growth?

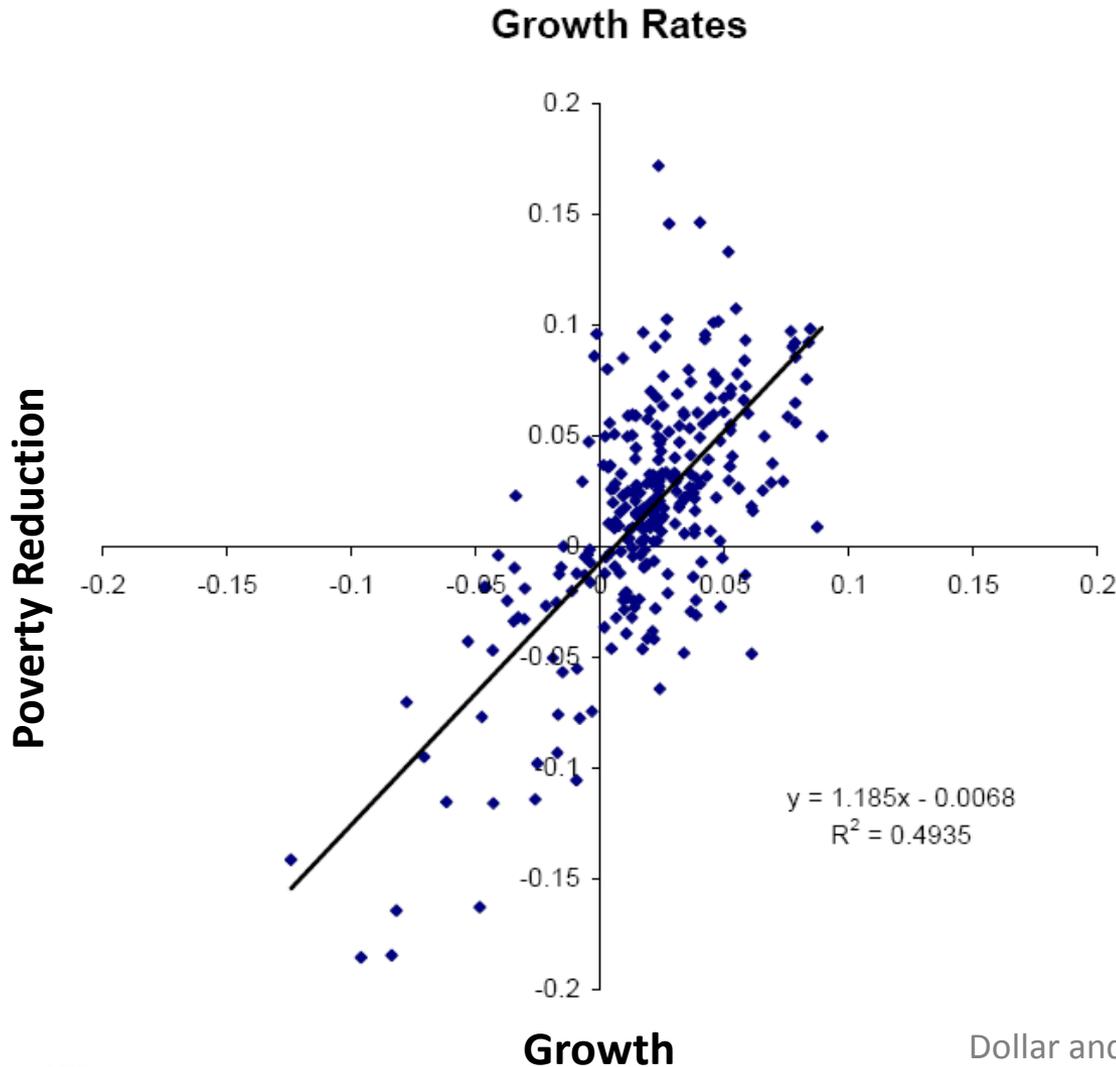
- “Green growth [...] is about fostering economic growth and development while *ensuring that natural assets continue to provide* the resources and environmental services on which our well-being relies” (OECD 2011).
- “UNEP defines a green economy as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. [...] The key aim for a transition to a green economy is to *eliminate the trade-offs* between economic growth and investment and gains in environmental quality and social inclusiveness” (UNEP 2011).

Green Growth is not a sharply defined concept, and it lacks empirical verification...

... so maybe reducing economic output or at least slowing down its growth is a more straightforward solution?

This approach is frequently labeled '*degrowth*'.

Growth and Poverty Reduction



- People living in absolute poverty: >1 billion.
- Without economic growth, chances to escape poverty are diminished.

Dollar and Kray (2002)

What does Degrowth mean for Income Distribution?

... and the US would have to degrow by about 80%

If global income were distributed equally...



... developing SSA could increase per-capita GDP seven-fold...

... LAM would remain at the current level...

Limiting global warming to $<2^{\circ}\text{C}$ requires reducing carbon intensity of GDP ($\text{CO}_2/\text{US}\$$) by $\sim 4\text{-}7\%$ per year. Degrowth might reduce the needed annual reductions by 2%...

... but where should the other roughly 2-5% come from? (Hepburn and Bowen 2012)

Further, reducing GDP by 1% to get 1% of emission reductions corresponds to a carbon price of more than
USD 2'000 / tCO_2

... why not go for much cheaper technological solutions and use the remaining money elsewhere?

Hence, growth might not be desirable per se, but there is no reason to restrict economic growth directly...

... - instead, we need to think about how we define social welfare!

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What is the currently used Welfare Indicator?

- By „historical accident“ and a lot of positive feedback it is this:

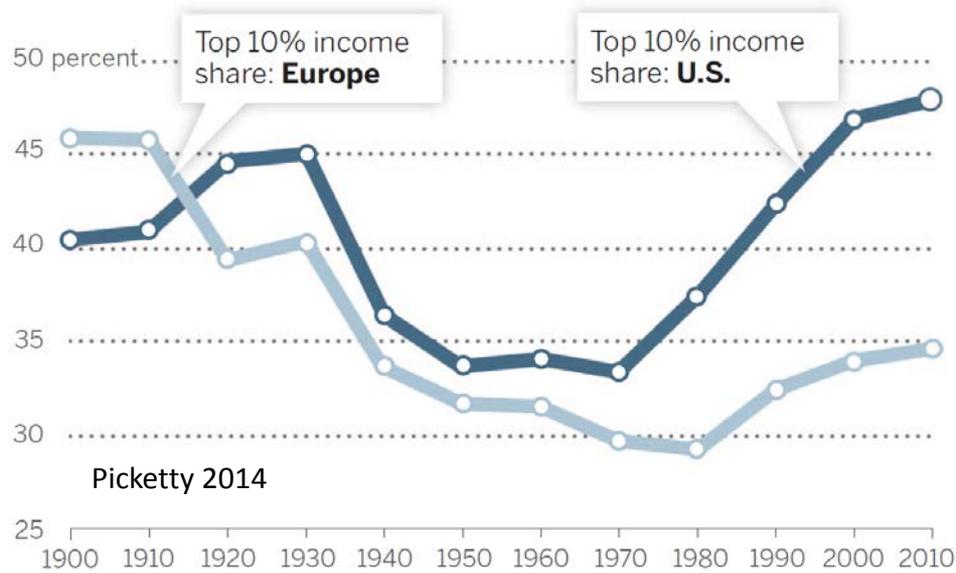
GDP =

The monetary value of all the finished goods and services produced within a country's borders over a year's time.

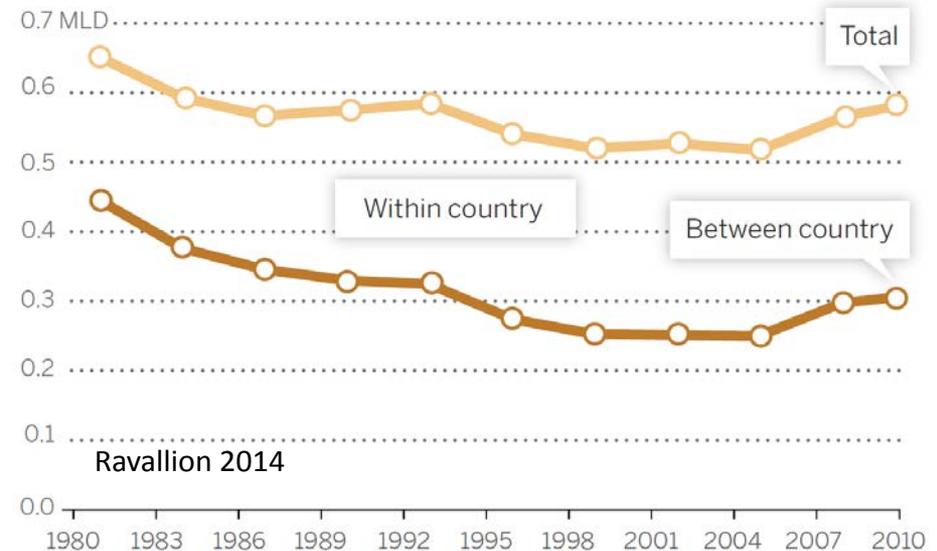
$$\text{GDP} = \text{C} + \text{I}$$

- **GROWTH PARADIGM:** By the logic of many political actors, growth in GDP is a welfare improvement and the solution to social (and environmental?) problems.
- `Heterodox' Economists believe that this is inappropriate for affluent societies, although it may be correct for the developing world.

Growth, Convergence, and Inequality



US and Europe



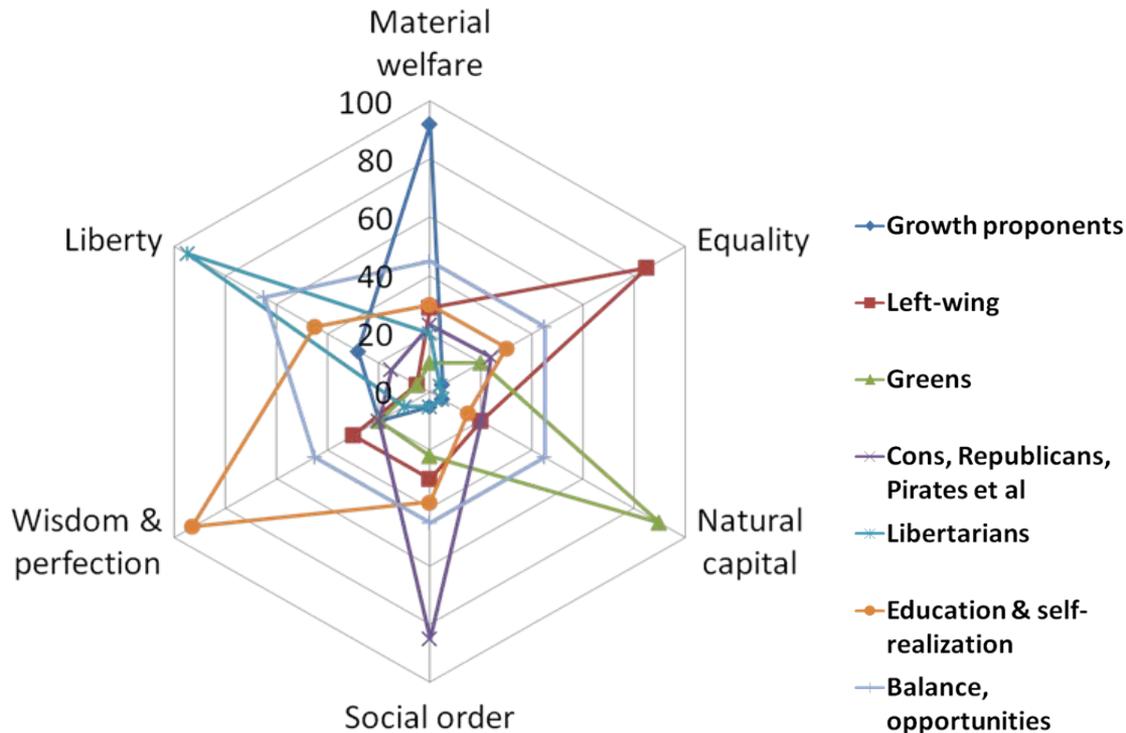
Developing Countries

Despite continued economic growth, income inequality is rising in all parts of the world.

Is a richer but more unequal society better off?

Towards 'Welfare Diagnostics'

- There are many different perspectives on social welfare.
- Can we at least identify and remove the most crucial constraints by focusing on areas most people would agree on?

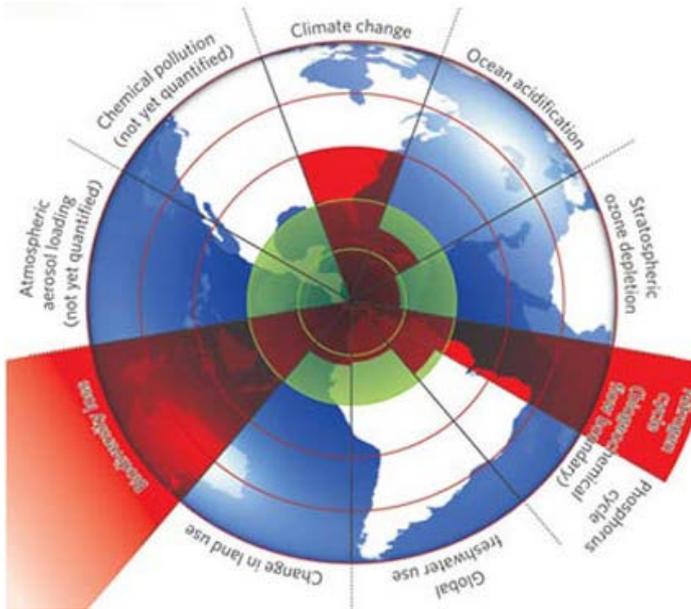


- Parallel to Sen's (2009) 'Intersection Principle'
- Also related to Hausman et al.'s (2005) 'Growth Diagnostics'

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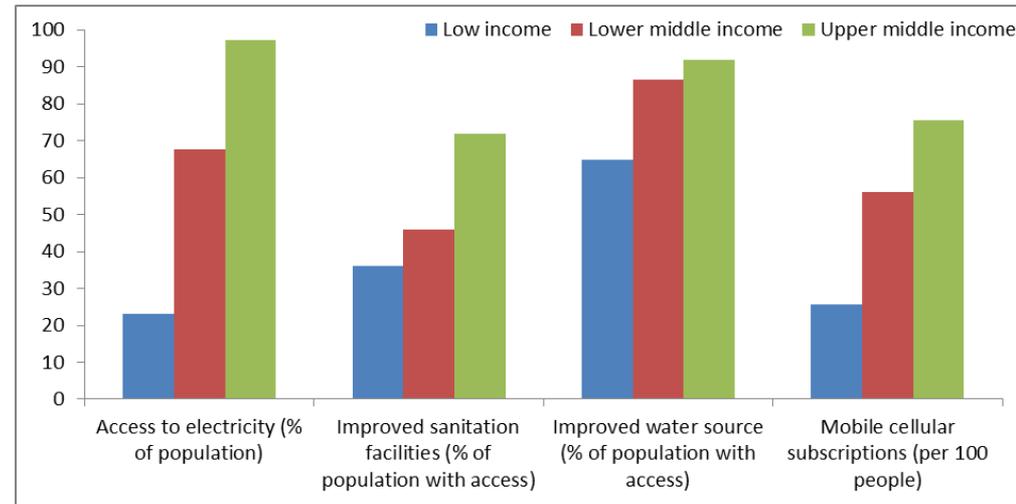
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Welfare-Relevant Capital Stocks



Rockström et al. (2009)

Natural Capital is over-used...

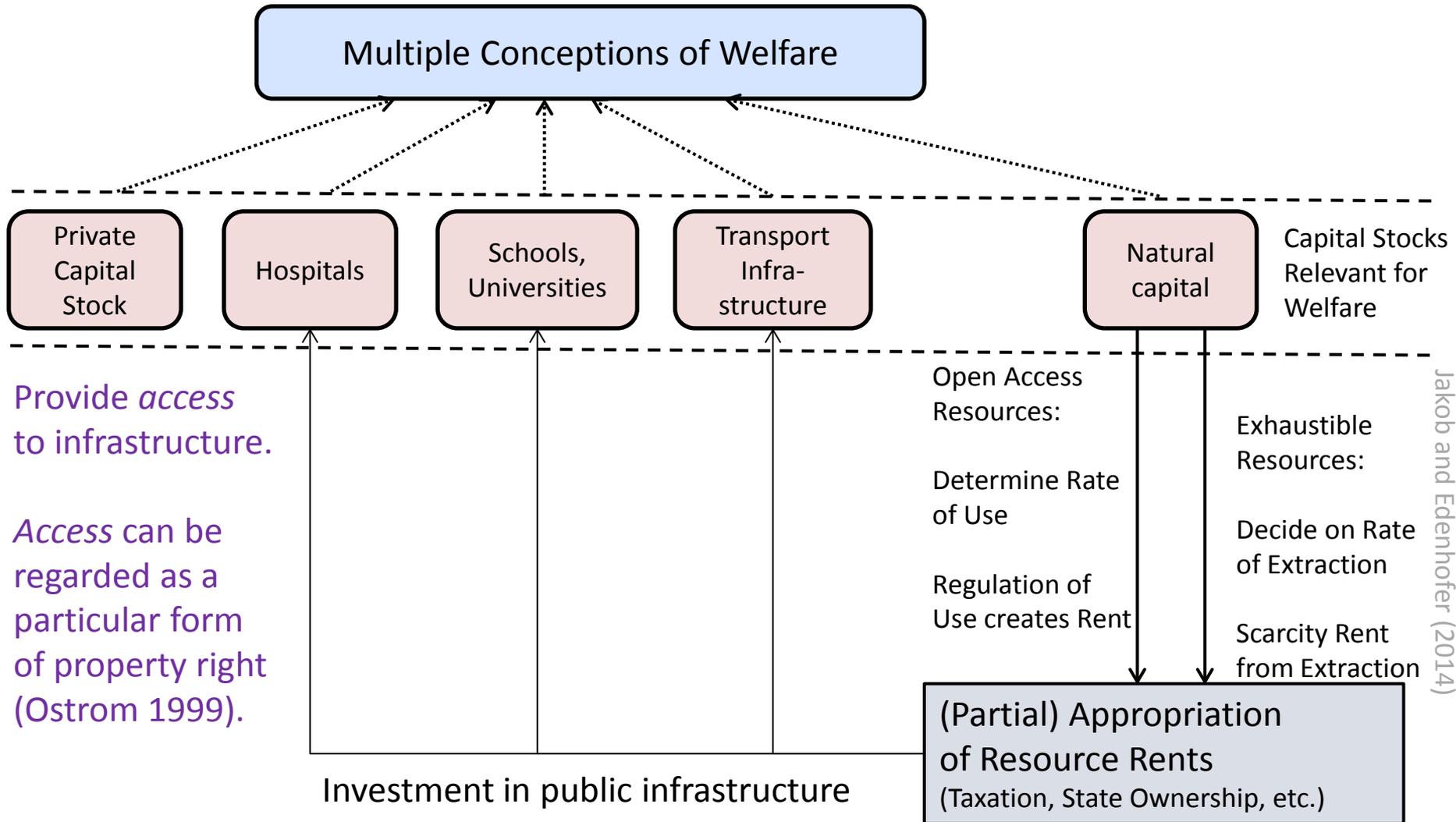


Jakob and Edenhofer (submitted)

...while public infrastructure is under-provided.

- “Welfare Diagnostics” to identify minimum thresholds
- These thresholds can be understood as Rawls’s (1979) ‘primary goods’ or as providing the material foundations for ‘capabilities’ à la Sen (1999)

Infrastructure Investment and Resource Rent Taxation



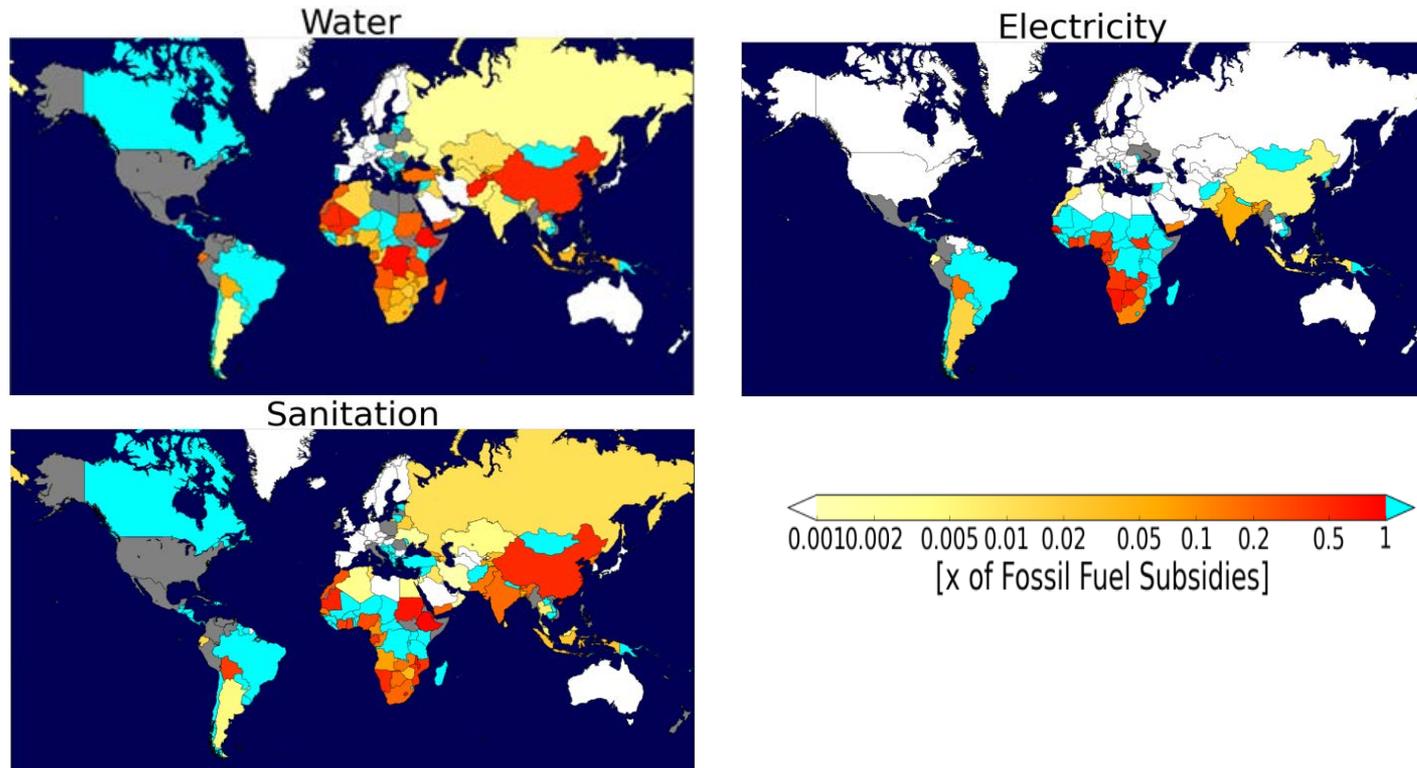
The Global Resource Dividend

	Poverty, millions (%)			
	Current (year 2008)		With resource dividend	
World	1,327	(25.6%)	567	(10.9%)
East Asia and Pacific	307	(17.0%)	40	(2.2%)
EAP without China	113	(22.4%)	31	(6.1%)
Eastern Europe and Central Asia	20	(4.2%)	5	(1.1%)
Latin America and the Caribbean	46	(8.6%)	9	(1.7%)
Middle East and North Africa	10	(4.2%)	0	(0.1%)
South Asia	579	(40.3%)	286	(19.9%)
Sub-Saharan Africa	364	(52.9%)	226	(32.8%)

Based on Segal (2011)

If natural resource rents were redistributed on an equal per-capita basis (on the national level), global poverty could be halved.

Fossil Fuels Subsidy Reform



Jakob et al. (2015)

- Redirect fossil fuel subsidies to infrastructure from 2015 to 2030
- Roughly 80 countries do not have universal access to water, sanitation, and electricity
- Universal access to clean water could be provided in about 70 countries
- Improved sanitation in about 60 countries
- Access to electricity in about 50 countries

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Conclusions

- Public policy should not primarily be concerned with *growth*, but with *welfare*.
- Economic growth cannot be a goal in itself. But it could help to attain desirable objectives (i.e. happiness, prosperity...).
- Different members of society do not necessarily have to agree on a definition of welfare. It is sufficient that they agree on minimum thresholds to remove most severe deprivations ('welfare diagnostics').
- Public policy can then be understood as managing a portfolio of welfare-relevant capital stocks, in particular regarding minimum levels of access.
- Improved management of natural resources creates economic surplus that can be employed to invest in physical infrastructure.